SOS Translations Guide 5.1

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Version History

- 5.1: Aug. 2016
- 5.0: Nov. 2015

Introduction

Beginning with the 5.0 release, multi-language support became available in the SOS software. As SOS installations have become widespread internationally, the impact of its educational outreach has become hindered by its lack of support for non-English speaking administrators, presenters, and the viewing public. Additionally, many countries, including the United States, have large populations that have English as their second language. So to increase the reach of science education, SOS now has the ability to use non-English languages in its software.

The iOS Remote App ("iPad App"), NOAA SOS Public Kiosk (“NOAA Kiosk”), Visual Playlist Editor (“VPLE”) all support localized user interfaces (UIs), which include dynamic translation of text in labels, buttons, and dialog boxes to a native language. The SOS Data Catalog also supports localization of dataset names and descriptions, major and sub categories, and keywords, including language variations in different countries. As of SOS 5.1, Data Catalog localization is supported in the iPad App and the NOAA Kiosk, but not yet in the VPLE.

In most cases, NOAA will not be creating localizations for SOS, but will rely on others such as SOS distributors, content creators, and sites where English is not the primary language to create translations in their preferred languages. NOAA will readily share high quality contributed SOS translations in different languages for the benefit of the entire SOS community.

Overview

There are two principal types of localizations done in SOS:

1. **Datasets and related metadata in the SOS Data Catalog**
    1. Dataset names and descriptions are translated by using playlists or tab separated value (tsv) files in a spreadsheet application (like Excel or Google Sheets).
    2. Major category, subcategory, and keywords are translated using comma separated value (csv) files in a spreadsheet application (like Excel or Google Sheets).
2. **User interfaces of specific applications in the SOS Product Suite**
    1. iOS Remote App translations are defined using tab separated value (tsv) files in a spreadsheet application and converted to an Apple strings file format.
    2. Kiosk UI translations are made using the Kiosk Administration UI and the 3rd-party Qt Linguist program on the Kiosk machine. See the NOAA SOS Public Kiosk guide, Appendix D.
    3. Visual Playlist Editor UI translations are made using tab separated value (tsv) files in a spreadsheet application (like Excel or Google Sheets) and the 3rd-party Qt Linguist program on the SOS machine.

Each of the these types of translations will be discussed separately in the sections below, with the exception of localization for the NOAA Kiosk, which is covered in the NOAA SOS Public Kiosk guide. For general assistance on performing translations for SOS, please contact SOS support at sos.gsd@noaa.gov.

Dataset Translations

Translation files for datasets and related metadata in the SOS Data Catalog reside on the SOS machine under the /**shared**/**sos**/**locale** directory. There are three types of files used to translated datasets. Dataset

name and description translations are defined in SOS playlists and in tab separated value (tsv) files, while major categories, subcategories, and keywords are defined in comma separated value (csv) files.

Each translation file follows the naming convention **xx_YY.zzz**, where **xx** is the

ISO-639 language code, **YY** is the ISO-3166 country code, and **zzz** is the file format extension (sos, tsv, or csv). The locale information is extracted from the playlist filename, so it is critically important to use the correct language and country codes for the language being translated. All the translations for each language/country combination are defined together in the same sos, tsv, and csv files. It is not required to supply translations for the entire SOS Data Catalog at once for a locale. Any dataset information that does not have translations will remain in English and you can add more translations incrementally at any time.

The default locale is en_US, which is English in the United States. However, you are allowed to use **en_US.sos**, **.tsv**, and **.csv** files to make “translations.” While these aren’t technically translations, the definitions specified will override the default English information in the SOS Data Catalog, giving you the opportunity to customize the text there, if desired.

Dataset Translation Playlists

There are two options for translating the names and descriptions of datasets and their variations. The first of these is using standard SOS playlists (see the Dataset Translation TSV Files section for using the other option). Either option works well, but playlists must be used if you have longer descriptions that require multiple paragraphs.

For translations, each dataset or variation is specified by three playlist properties: an

include

keyword with the dataset playlist path, a `rename` keyword with a translated name, and a `description` keyword with a translated description on one or more lines enclosed between {{ }} characters. Here is an example of part of a **zh_TW.sos** playlist used to translate Traditional Chinese in Taiwan for several datasets:

```
# ID 96: Nighttime Lights
include = /shared/sos/media/land/earth_night/nightlights/playlist.sos
rename = 夜間的地球
description = {{這個圖像由國家地球物理資料中心（NGDC）的防禦氣象衛星計畫DMSP）所紀錄下來的。國家地球物理資料中心的地球觀測團隊負責這些數據的研究與建檔，並將可利用的資料加以產品化。資料的蒐集則是利用每日繞行地球二次的極地軌道衛星，衛星有一個掃描線運轉系統，其可見光及近紅外光的（VNIR）感測器在夜間可做低度空間的監測，同時也可感測月光下的雲層、城鎮的燈光、工廠的區位，燃料氣的燃燒閃焰、火光、閃電和極光等。這些夜晚的光線資料都是防禦氣象衛星計畫在1994年10月到1995年3月之間蒐集的數據所建立起來的。

這張特別的圖像只顯示來自電力的光。海洋的部分以深藍色呈現，陸地則是以稍微淺一點的藍色來區分。所有的光都是明亮的白色。經濟繁榮或人口集中的區域通常光線較亮，大部分的海岸線附近也是高亮度地區，可見人們喜歡傍水而居。根據沿岸燈光可以勾勒出非洲尼羅河的輪廓。在美國，東半部地區人口密度比其他地區高。沿著燈光也可辨識重要高速公路之所在。

將全年的資料所合成的影像以及某一個夜晚的資料加以比較，就可以發現電力耗損的情形。全年所累積的光其影像是紅色的，特定一個夜晚的光則呈現綠色，該晚的溫度數據則以藍色呈現，因此雲層看起來是藍的。黃色代表一整年以及那個晚上都有亮光，綠色表示只亮那一晚；只有全年光影的則呈紅色。任何大範圍的紅色有可能就是電力耗損的區域。在卡崔納颶風侵襲過後的2005年8月30日，比較同一個地表不同時間拍攝的兩張影像可以看出災區的範圍；第一張是黑白的燈光影像，第二張有著色的照片則突顯一大片電力中斷的區域。 }}

# ID 44: Air Traffic
include = /shared/sos/media/atmosphere/air_traffic/playlist.sos
```

```
rename = 空中交通
description = {{每一天，在美國的天空都有87,000多的航班。其中1/3是航空公司，如西南航空。平均每天，空中交通管制員需要處理28,537的商業航班（其中包括全球跟地區航空公司），27,178通用航班（例如：私人飛機），24548空中租用航班（飛機租用），5,260班次的軍事飛行航班和2,148班次的遞送航班（聯邦快遞， UPS等）。在任何一個時段都有大約5,000航班在美國天空。一年裡，平均有6,400萬次的起飛和著陸。}}
```

How to create translations for a new language:

1. Generate playlist files from the SOS dataset catalog using `translations2db --generate_playlist` (see the translations2db Command Line Utility section for details)
2. Copy **/shared/sos/locale/generated/en_US.sos** from to **/shared/sos/locale/xx_YY.sos**, following the **xx_YY.sos** locale naming convention for the language and country for which you want to create a translation.
3. Replace the English values (to the right of the equals sign) for the `rename` and `description` keywords with translated values in a Linux text editor, such as **vi** or **gedit**. Be sure the description text is enclosed between {{ and }} characters
4. Reload your dataset translations into the SOS Data Catalog using either the SOS Stream GUI or `translations2db --load_playlists` (see the translations2db Command Line Utility section for details).

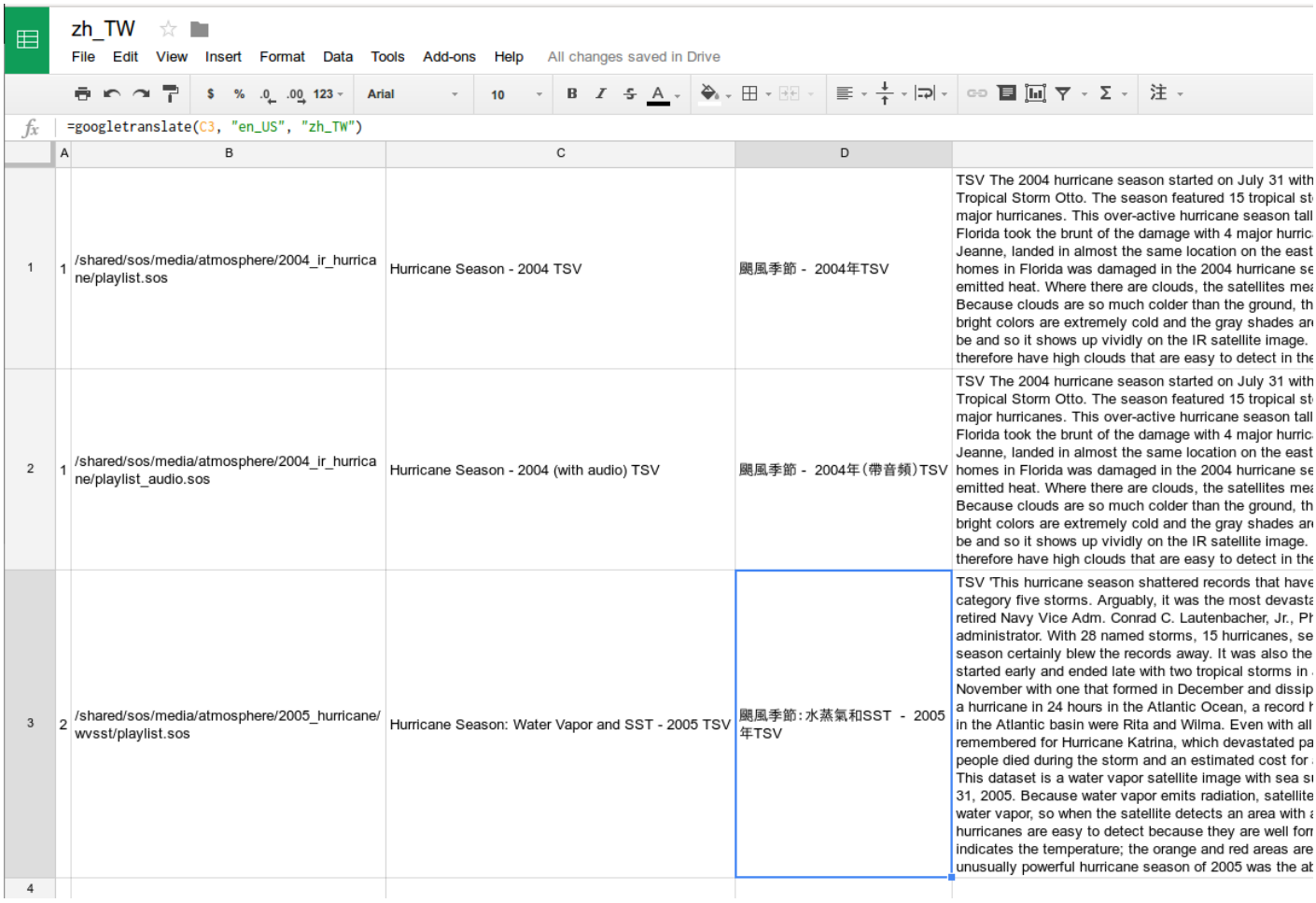
How to edit translations:

Editing a translation (or English override text) is done by simply modifying the values to the right of the equals sign of either rename or description keywords for any datasets in a translation playlist with your favorite text editor. Be sure the description text is enclosed between {{ and }} characters. Should you wish to remove a particular translation entirely, just delete the lines containing include, rename, and description for any datasets you no longer want.

Dataset Translation TSV Files

The second option for translating the names and descriptions of datasets and their variations is with tab separated value (tsv) files (see the Dataset Translation Playlists section for using the other option). Either option works well, but tsv files have the advantage of being easily loaded into a standard spreadsheet for convenient editing. For translations, each dataset or variation is specified by four columns: A is the dataset ID number in the Data Catalog, B is the playlist file path, C is the dataset name, and D is the dataset description.

One highly efficient way to use this option is to upload the dataset tsv file you want to translate into a Google Sheet using Google Drive and then use the Google Translate formula to automatically translate all the text. Here is an example of part of a **zh_TW.tsv** file imported to a Google Sheet, with translations of dataset names from column B to Traditional Chinese in column C:



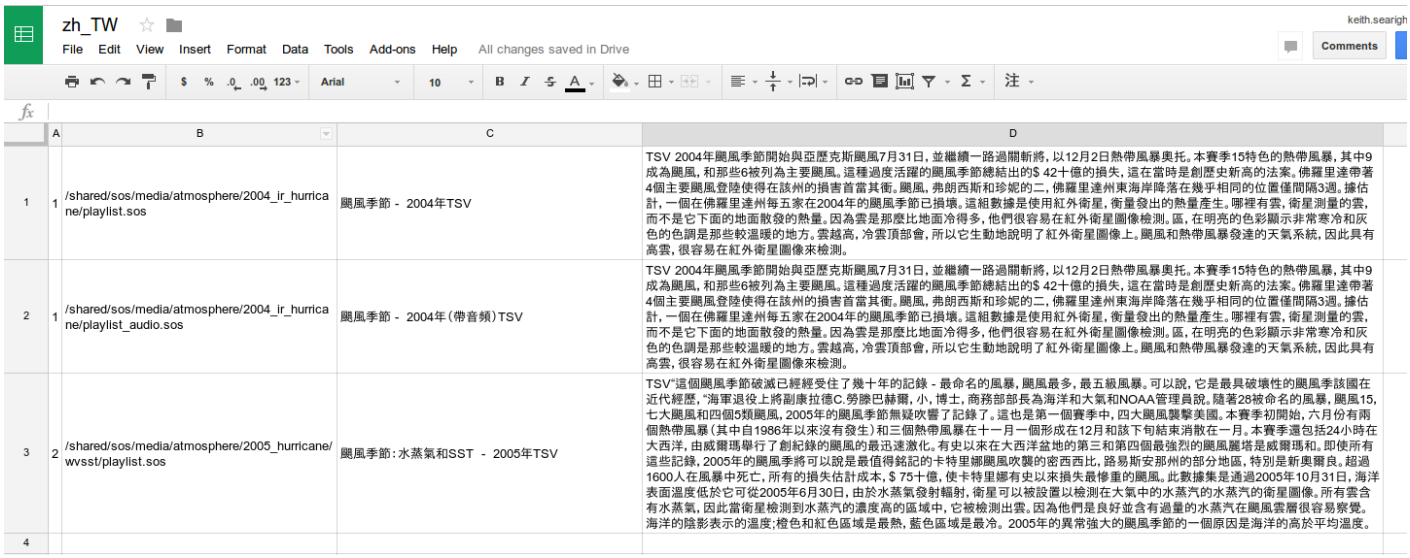
zh_TW

File Edit View Insert Format Data Tools Add-ons Help All changes saved in Drive

=googletranslate(C3, "en_US", "zh_TW")

	A	B	C	D	
1	1	/shared/sos/media/atmosphere/2004_ir_hurricane/playlist.sos	Hurricane Season - 2004 TSV	颶風季節 - 2004年TSV	TSV The 2004 hurricane season started on July 31 with Tropical Storm Otto. The season featured 15 tropical st major hurricanes. This over-active hurricane season tall Florida took the brunt of the damage with 4 major hurric Jeanne, landed in almost the same location on the east homes in Florida was damaged in the 2004 hurricane se emitted heat. Where there are clouds, the satellites mea Because clouds are so much colder than the ground, th bright colors are extremely cold and the gray shades ar be and so it shows up vividly on the IR satellite image. therefore have high clouds that are easy to detect in the
2	1	/shared/sos/media/atmosphere/2004_ir_hurricane/playlist_audio.sos	Hurricane Season - 2004 (with audio) TSV	颶風季節 - 2004年(帶音頻)TSV	TSV The 2004 hurricane season started on July 31 with Tropical Storm Otto. The season featured 15 tropical st major hurricanes. This over-active hurricane season tall Florida took the brunt of the damage with 4 major hurric Jeanne, landed in almost the same location on the east homes in Florida was damaged in the 2004 hurricane se emitted heat. Where there are clouds, the satellites mea Because clouds are so much colder than the ground, th bright colors are extremely cold and the gray shades ar be and so it shows up vividly on the IR satellite image. therefore have high clouds that are easy to detect in the
3	2	/shared/sos/media/atmosphere/2005_hurricane/wvsst/playlist.sos	Hurricane Season: Water Vapor and SST - 2005 TSV	颶風季節:水蒸氣和SST - 2005年TSV	TSV 'This hurricane season shattered records that have category five storms. Arguably, it was the most devasta retired Navy Vice Adm. Conrad C. Lautenbacher, Jr., Ph administrator. With 28 named storms, 15 hurricanes, se season certainly blew the records away. It was also the started early and ended late with two tropical storms in November with one that formed in December and dissip a hurricane in 24 hours in the Atlantic Ocean, a record h in the Atlantic basin were Rita and Wilma. Even with all remembered for Hurricane Katrina, which devastated pa people died during the storm and an estimated cost for This dataset is a water vapor satellite image with sea s 31, 2005. Because water vapor emits radiation, satellite water vapor, so when the satellite detects an area with a hurricanes are easy to detect because they are well forr indicates the temperature; the orange and red areas are unusually powerful hurricane season of 2005 was the ab
4					

To complete the translation for this example, copy column C over column B (using Paste special > Paste values only), delete column C, then repeat these same steps for the the dataset descriptions. Once the translations are all pasted as values they may be edited by hand to fix errors and improve the quality of the translations. Here is the Google Sheet in its completed form:



zh_TW

File Edit View Insert Format Data Tools Add-ons Help All changes saved in Drive

keith.searigh Comments

	A	B	C	D
1	1	/shared/sos/media/atmosphere/2004_ir_hurricane/playlist.sos	颶風季節 - 2004年TSV	TSV 2004年颶風季節開始與亞歷克斯颶風7月31日，並繼續一路過關斬將，以12月2日熱帶風暴奧托。本賽季15特色的熱帶風暴，其中9成為颶風，和那些6被列為主要颶風。這種過度活躍的颶風季節總結出的$ 42十億的損失，這在當時是創歷史新高的法案。佛羅里達帶著4個主要颶風登陸使得在該州的損害首當其衝。颶風，弗朗西斯和珍妮的二，佛羅里達州東海岸降落在幾乎相同的位置僅間隔3週。據估計，一個在佛羅里達州每五家在2004年的颶風季節已損壞。這組數據是使用紅外衛星，衛量發出的熱量產生。哪裡有雲，衛星測量的雲，而不是它下面的地面散發的熱量。因為雲是那麼比地面冷得多，他們很容易在紅外衛星圖像檢測。區，在明亮的色彩顯示非常寒冷和灰色的色調是那些較溫暖的地方。雲越高，冷雲頂部會，所以它生動地說明了紅外衛星圖像上。颶風和熱帶風暴發達的天氣系統，因此具有高雲，很容易在紅外衛星圖像來檢測。
2	1	/shared/sos/media/atmosphere/2004_ir_hurricane/playlist_audio.sos	颶風季節 - 2004年(帶音頻)TSV	TSV 2004年颶風季節開始與亞歷克斯颶風7月31日，並繼續一路過關斬將，以12月2日熱帶風暴奧托。本賽季15特色的熱帶風暴，其中9成為颶風，和那些6被列為主要颶風。這種過度活躍的颶風季節總結出的$ 42十億的損失，這在當時是創歷史新高的法案。佛羅里達帶著4個主要颶風登陸使得在該州的損害首當其衝。颶風，弗朗西斯和珍妮的二，佛羅里達州東海岸降落在幾乎相同的位置僅間隔3週。據估計，一個在佛羅里達州每五家在2004年的颶風季節已損壞。這組數據是使用紅外衛星，衛量發出的熱量產生。哪裡有雲，衛星測量的雲，而不是它下面的地面散發的熱量。因為雲是那麼比地面冷得多，他們很容易在紅外衛星圖像檢測。區，在明亮的色彩顯示非常寒冷和灰色的色調是那些較溫暖的地方。雲越高，冷雲頂部會，所以它生動地說明了紅外衛星圖像上。颶風和熱帶風暴發達的天氣系統，因此具有高雲，很容易在紅外衛星圖像來檢測。
3	2	/shared/sos/media/atmosphere/2005_hurricane/wvsst/playlist.sos	颶風季節:水蒸氣和SST - 2005年TSV	TSV"這個颶風季節破滅已經經受住了幾十年的記錄 - 最命名的風暴，颶風最多，最五級風暴。可以說，它是最具破壞性的颶風季該國在近代經歷，"海軍退役上將副康拉德C.勞滕巴赫爾，小，博士，商務部部長為海洋和大氣和NOAA管理員說。隨著28被命名的風暴，颶風15，七大颶風和四個5類颶風，2005年的颶風季節無疑吹響了記錄了。這也是第一個賽季中，四大颶風襲擊美國。本賽季初開始，六月份有兩個熱帶風暴（其中自1986年以來沒有發生）和三個熱帶風暴在十一月一個形成在12月和該下旬結束消散在一月。本賽季還包括24小時在大西洋，由威爾瑪舉行了創紀錄的颶風的最迅速激化。有史以來在大西洋盆地的第三和第四個最強烈的颶風麗塔是威爾瑪和。即使所有這些記錄，2005年的颶風季將可以說是最值得銘記的卡特里娜颶風吹襲的密西西比，路易斯安那州的部分地區，特別是新奧爾良。超過1600人在風暴中死亡，所有的損失估計成本，$ 75十億，使卡特里娜有史以來損失最慘重的颶風。此數據集是通過2005年10月31日，海洋表面溫度低於它可從2005年6月30日，由於水蒸氣發射輻射，衛星可以被設置以檢測在大氣中的水蒸汽的水蒸汽的衛星圖像。所有雲含有水蒸氣，因此當衛星檢測到水蒸汽的濃度高的區域中，它被檢測出雲。因為他們是良好並含有過量的水蒸汽在颶風雲層很容易察覺。海洋的陰影表示的溫度;橙色和紅色區域是最熱，藍色區域是最冷。2005年的異常強大的颶風季節的一個原因是海洋的高於平均溫度。
4				

The final steps are to download this as a tsv file, copying it into **/shared/sos/locale/zh_TW.tsv** (replacing the original file there).

Reload your dataset translations into the SOS Data Catalog using `translations2db --load_dataset_tsv` (see the translations2db Command Line Utility section for more details).

Dataset-Related Metadata Translations

The SOS Data Catalog uses metadata to organize and provide searching capabilities for the hundreds of datasets it holds. Each dataset has at least one Major Category and Subcategory to classify it and usually has one or more Keywords pertaining to its content. These metadata entities are localized using comma separated value (csv) files. Csv is a common import/export format for spreadsheets, such as Excel or Google Sheets. The csv files follow the naming convention xx_YY.csv, where xx is the ISO-639 language code and YY is the ISO-3166 country code. The default locale is en_US, which is English in the United States. However, if an en_US.csv file is present, it will not be imported into the SOS Data Catalog since American English values are already defined by default.

Each row in the csv file includes the type of metadata, the English text, and the translated text. Here is an example of portions of a Google Translated **es_MX.csv** file for Mexican Spanish::

```
MajorCategory,Water,Agua
MajorCategory,Land,Tierra
MajorCategory,Space,Espacio
MajorCategory,Extras,Extras
MajorCategory,People,Gente
MajorCategory,Snow and Ice,Nieve y Hielo
MajorCategory,Air,Aire
MajorCategory,Site-Custom,Sitio-Aduana
SubCategory,Temperature,Temperatura
SubCategory,Real-time Weather Models,En tiempo real Tiempo Modelos
SubCategory,Health,Salud
Keyword,Phases,Fases
Keyword,Density,Densidad
Keyword,Sulfate,Sulfato
```

How to create translations for a new language:

1. Create an en_US.csv file (see the translations2db Command Line Utility section for details)
2. Rename it to the correct locale name following the xx_YY.csv naming convention
3. Load it into a spreadsheet program (or a text editor if preferred)
4. Replace the last column of English text with translated values. Do not modify the text in the first two columns.
5. Export back to csv (if using a spreadsheet). Be sure the xx_YY.csv file is placed in the /shared/sos/locale/ directory.
6. Load the xx_YY.csv file into the SOS Data Catalog using either theSOS Stream GUI ortranslations2db command line utility.

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iOS Remote App User Interface Translations

The iOS Remote App encompasses iPad and iOS versions of the main controller of SOS for presenters. It has a rich user interface that includes many labels, buttons, and dialog boxes. The iPad and iPhone devices have the ability to set their Language and Country from Settings, which automatically translates those Apps that have that capability.

Apple provides built-in translation capabilities that require a particular format, which is a type of property-value pair file called a strings file. In the case of the iOS Remote App, the user interface elements that have only one or a few English language words are matched and translated on-the-fly using the strings file. Other

user interface elements, such as more verbose messages, use placeholder text of a few words (preceded by ^) that is used to look up translations.

The Apple strings file format is not particularly convenient for editing by a human translator, so for translating the iOS Remote App, SOS uses tab separated value (tsv) files that are placed under /shared/sos/locale/iOS. Like csv, tsv is a common import/export format for spreadsheets, such as Excel or Google Sheets. Tsv was chosen instead of csv here because commas frequently occur in the iOS user interface text, while tabs do not. The tsv files follow the naming convention xx.tsv, where xx is the ISO-639 language code (country codes are not currently used for the iOS translations). The default locale is en, which is English. Unlike the translations described above that are loaded into the Data Catalog, the en.tsv file can be used to "override" the default English text in the iPad and iPhone Remote App user interfaces. This is unlikely to be used routinely, but is available to anyone wishing to do some minor customization of the iOS Remote App UI text or to fix typos between releases.

Each row in the tsv file includes either the actual English text or special "key" text prefixed by "^", and the translated text. Here is an example of portions of a Google Translated **es.tsv** file for Mexican Spanish:

```
/* Main Interface */
Presentation Entrega
Data Catalog Catálogo de datos
Playlist Builder Generador de Lista de reproducción
Web Page Página web
Settings Ajustes
/* Presentation */
Annotate Anotar
Zoom Ampliar
Slices Rebanadas
User Position Posición de usuario
Show Mostrar
Hide Esconder
Slicer Divisor
^Split Sphere Acerca de dividir la esfera en varios sectores. Por favor espera...
^Position Info Ajustes de orientación se producen en relación con esta posición de visión longitudinal situado en el ecuador.
^Frame Info Utilice el control deslizante del marco para desplazarse a un fotograma deseado en el conjunto de dat os.
^Playlist Button Lista de reproducción
^Catalog Button Catálogo
Volume Volumen
^Volume Info Los ajustes de volumen ocurren en relación con el volumen en el equipo SOS
```

Text enclosed between `/* */` characters are informational comments used to identify what part of the UI is being translated and are not part of the translation.

How to create translations for a new language:

1. Copy the **en.tsv** file in **/shared/sos/locale/iOS** to the correct locale name following the **xx.tsv** naming convention (contact SOS Support to obtain this file if it is not already on your system).
2. Load it into a spreadsheet program such as Google Sheets (or a text editor if preferred)
3. Replace the last column of English text with translated values. Do not modify the text in the first column. You can use Google Translate in a cell formula to automate this process (see the VPLE UI Translation section for a similar example of how to do this).
4. Export back to tsv (if using a spreadsheet). Be sure the **xx.tsv** file is placed in the

/**shared**/**sos**/**locale**/**iOS**/ directory.

5. Convert the **xx.tsv file** to **.xx.strings** using either the SOS Stream GUI or translations2db command line utility.

Visual Playlist Editor User Interface Translations

The Visual Playlist Editor (PDF) (VPLE) was first introduced as a “preview edition” in SOS 5.0 and was released with full functionality in SOS 5.1, replacing the previous playlist editor. The VPLE visually lays out, modifies, and previews SOS playlist content in a flat map display.

Beginning with SOS 5.1, the VPLE’s user interface may be localized (i.e., translated) to other languages. Note that the SOS Data Catalog, including datasets, categories, etc., is not shown in non-English languages in version 5.1, but that is planned for a future version.

The VPLE UI uses a third-party application called Qt Linguist to assist you in translating from English other languages. You can use Linguist for new translations or to edit any existing translations. There are two translation files for each locale under the linked directory /**shared**/**sos**/**locale**/**playlist_editor**: xx_YY.ts and xx_YY.qm, where xx = language (the ISO-639 language code), YY = country or region (the ISO-3166 country code), .ts = raw (ASCII) translation format, and .qm = compiled (binary) translation format. You do not need to know details about these formats to perform your translations.

The basic workflow to follow when translating the VPLE UI to a new language begins by performing a bulk translation of the text using automated translation software such as Google Translate. This activity consists of a number of steps to prepare the text for loading into a spreadsheet, creating the translations, and converting back to a raw translations file. You can then use Linguist to fix errors and bad translations that were automatically generated.

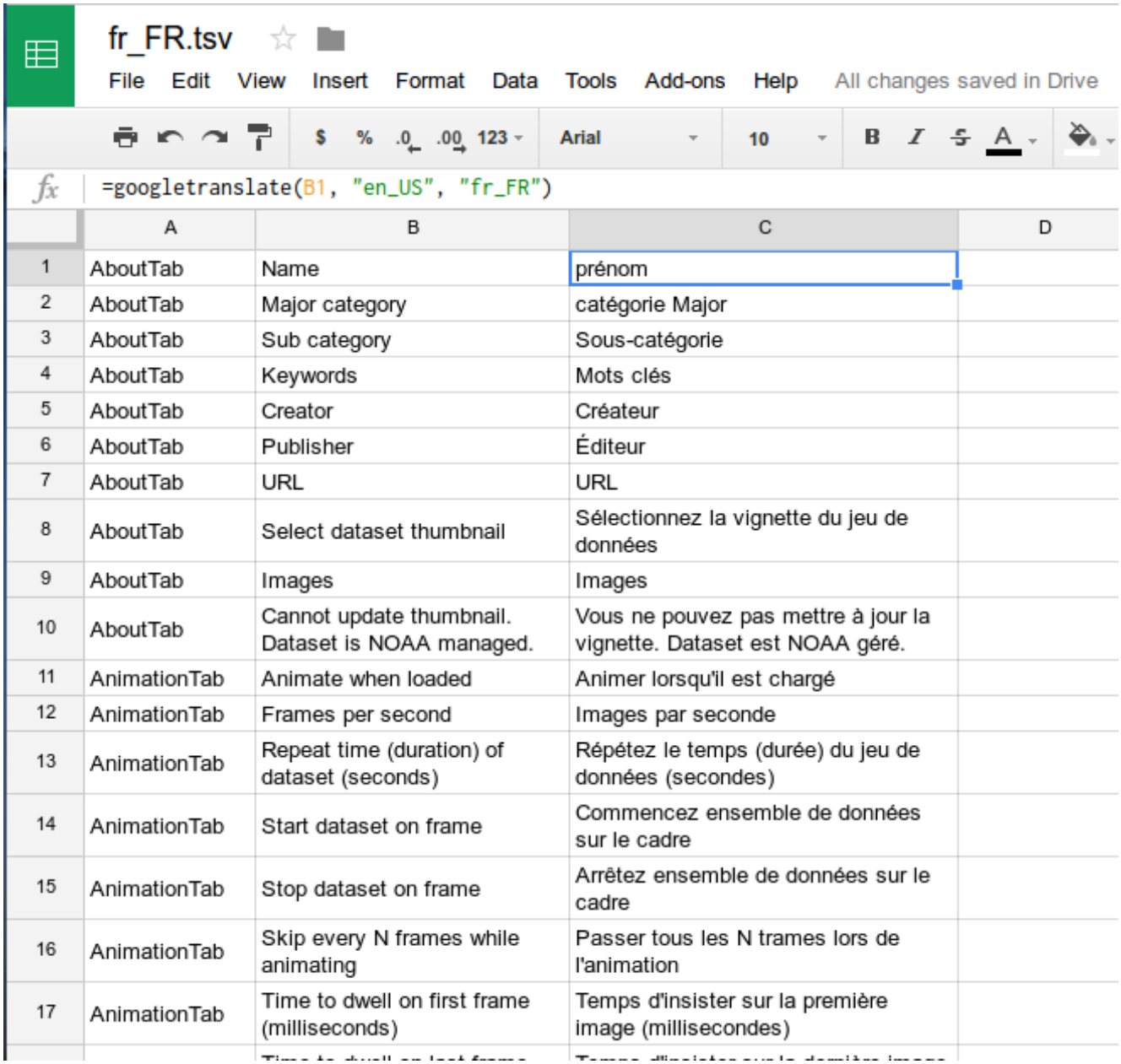
Here are the steps to create translations of VPLE UI text to a new language. If you are editing an existing translation, just skip to step 6. We will use French as an example.

1. Open a command shell and type the following commands (without the $ and substituting the locale you will be using, i.e., **fr_FR.ts** for French - fr in France - FR):

   ```
   $ cd /shared/sos/locale/playlist_editor
   $ cp en_US.ts fr_FR.ts
   $ translations2db --vple_ts_to_tsv
   ```

   A set of tab separated value (tsv) files in the form xx_YY.tsv will be created, one for each ts file. In the tsv files, VPLE user interface text strings are specified by three columns separated by tabs: Column A is the Context name (internal to the VPLE), B is text in English, and C is (currently) the same text as in column B, which we will be replacing with our translations.

2. If you have a Google Drive account, you can use Google Translate in a web browser to bulk translate the text in your tsv file to many different languages. After logging in to your Google Account, upload the dataset tsv file you want to translate into a Google Sheet. If you don’t wish to do a bulk translation, you can skip ahead to Step 6, using the Linguist application.
3. Use Google Translate cell formulas to automatically translate all the text in one column to a new column. Below is an example of part of a **fr_FR.tsv** file imported to a Google Sheet, with translations of English text in column B to French in column C. The formula entered for the highlighted cell (C1) is shown in the function (***fx***) field. This formula should be copied to all the cells in column C to perform the full set of translations.



fr_FR.tsv

File Edit View Insert Format Data Tools Add-ons Help All changes saved in Drive

=googletranslate(B1, "en_US", "fr_FR")

	A	B	C	D
1	AboutTab	Name	prénom	
2	AboutTab	Major category	catégorie Major	
3	AboutTab	Sub category	Sous-catégorie	
4	AboutTab	Keywords	Mots clés	
5	AboutTab	Creator	Créateur	
6	AboutTab	Publisher	Éditeur	
7	AboutTab	URL	URL	
8	AboutTab	Select dataset thumbnail	Sélectionnez la vignette du jeu de données	
9	AboutTab	Images	Images	
10	AboutTab	Cannot update thumbnail. Dataset is NOAA managed.	Vous ne pouvez pas mettre à jour la vignette. Dataset est NOAA géré.	
11	AnimationTab	Animate when loaded	Animer lorsqu'il est chargé	
12	AnimationTab	Frames per second	Images par seconde	
13	AnimationTab	Repeat time (duration) of dataset (seconds)	Répétez le temps (durée) du jeu de données (secondes)	
14	AnimationTab	Start dataset on frame	Commencez ensemble de données sur le cadre	
15	AnimationTab	Stop dataset on frame	Arrêtez ensemble de données sur le cadre	
16	AnimationTab	Skip every N frames while animating	Passer tous les N trames lors de l'animation	
17	AnimationTab	Time to dwell on first frame (milliseconds)	Temps d'insister sur la première image (millisecondes)	

4. With the Google Translation done, download the sheet as a tsv file and copy it into **/shared/sos/locale/playlist_editor/fr_FR.tsv** (replacing the original file there).
5. In a command shell, type the following command:
   `$ translations2db --tsv_to_vple_ts`
   This writes the translations from Google Translate back into the ts translation format. A set of files in the form xx_YY.tsv will be created, including the fr_FR.ts example here.

6. In a command shell, type the following commands:

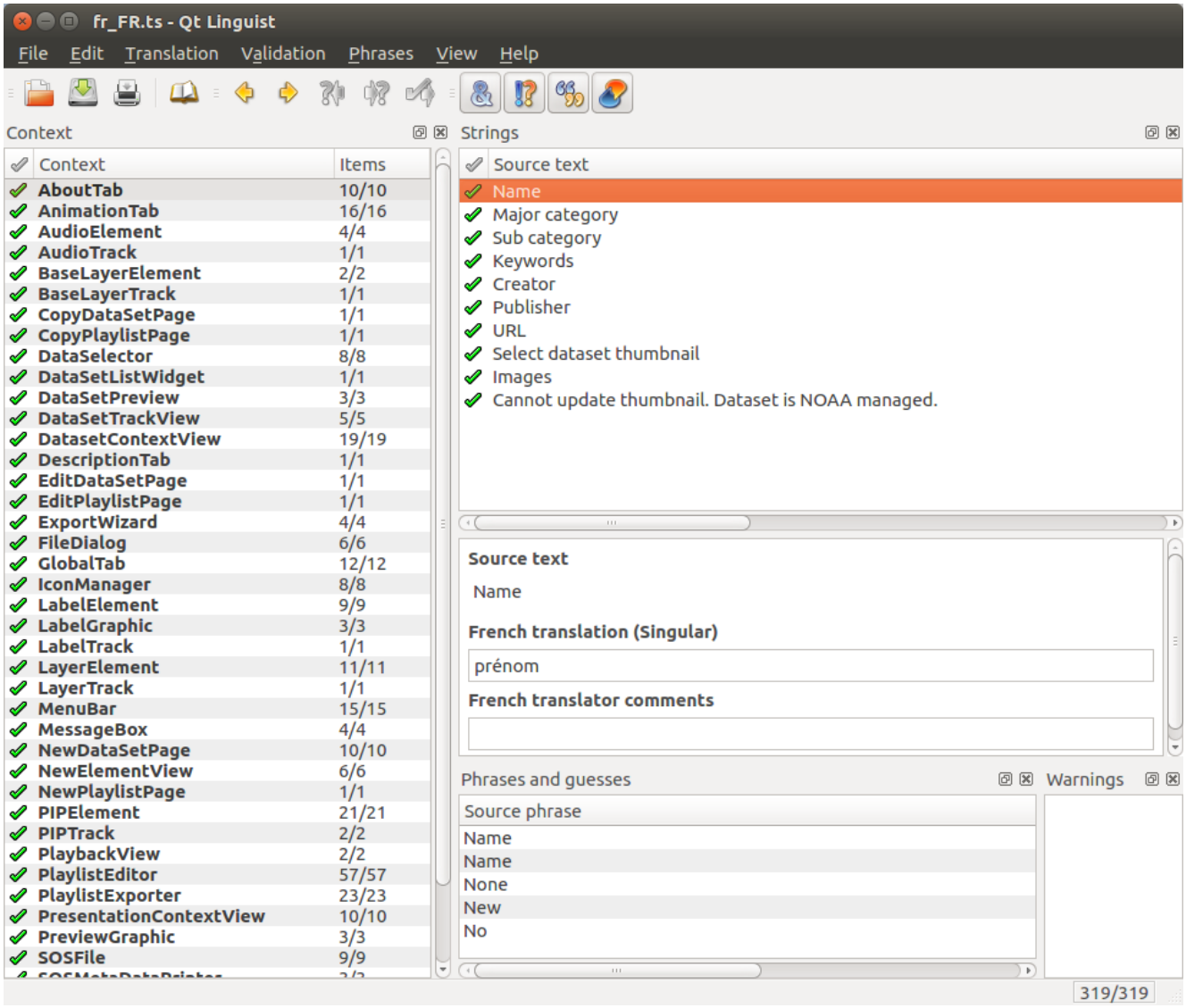
   ```
   $ cd /shared/sos/locale/playlist_editor
   $ /shared/sos/visual_playlist_editor/default/launch_linguist
   ```

   The Qt Linguist main window opens up.

7. From the menu bar, select File > Open and select fr_FR.ts to edit your French translations.
   A Settings dialog box may pop up automatically, but if it doesn't, from the menu bar, select **Edit > Translation File Settings…** In the Settings dialog box, fill in the Target language information for your

new locale and press OK.

8. Using the Linguist controls, go through each English text element by selecting first the **Context** item and then the first **Source text** item. If you wish to make a change, replace the English text in the **French translation** box with your revised translation. Then click the green Checkmark icon next to the item or in the toolbar to accept the translation edit. Do not type anything in the **French translator comments** box. The example below shows the translation for Name in the AboutTab Context.



After examining and making selected changes to all the **Source text** elements for the first **Context** item, select the next **Context** item and go through all its **Source text** elements. Continue in this fashion until reaching the end of the last **Context** item.

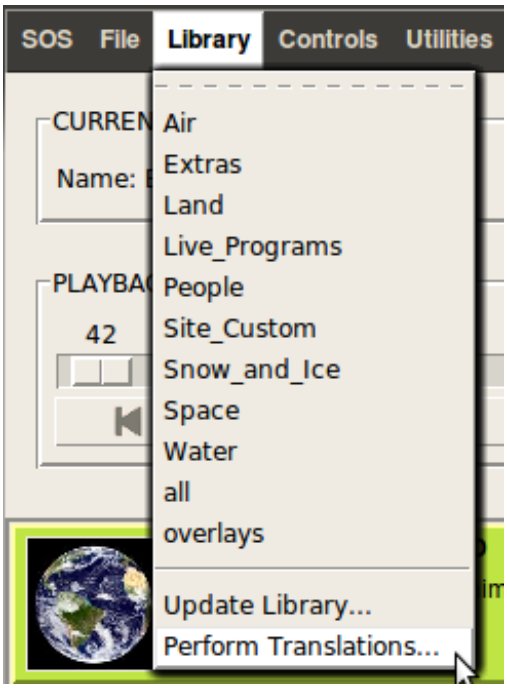
You may see that some of the checkmarks are yellow. This happens when the formatting of the translated text is incorrect. **You must fix all of these before your translations are complete!** There are two common types of formatting issues to correct, accelerators and place markers. Accelerators are “&” symbols and place markers are in the form “%n” with n either 0 or 1 (this is where text determine while the VPLE is running, like a file name, is inserted into the translated text). To fix these issues, edit the translation so the “&”, “%0”, and “%1” look the same in the translated language as with English (with no extra spaces and in the correct order). Linguist will indicate whether there is still or problem or not. Click the green check mark after each formatting error is fixed.

9. From the menu bar, select **File > Save** to save your translations to the raw translations ts file (**fr_FR.ts** in this example).
10. From the menu bar, select **File > Release** to write your translations to the compiled (binary) translations file. In this example, the file will be named **fr_FR.qm**.
11. You are now ready to test your translations. When you run the VPLE, from the menu bar, select the **Language > français** and the user interface text should switch to French. If you find any missing or incorrect translations, return to Linguist to examine and edit the French text, making sure to Save and Release to prepare your changes for the VPLE.

Performing Translations in the SOS Stream GUI

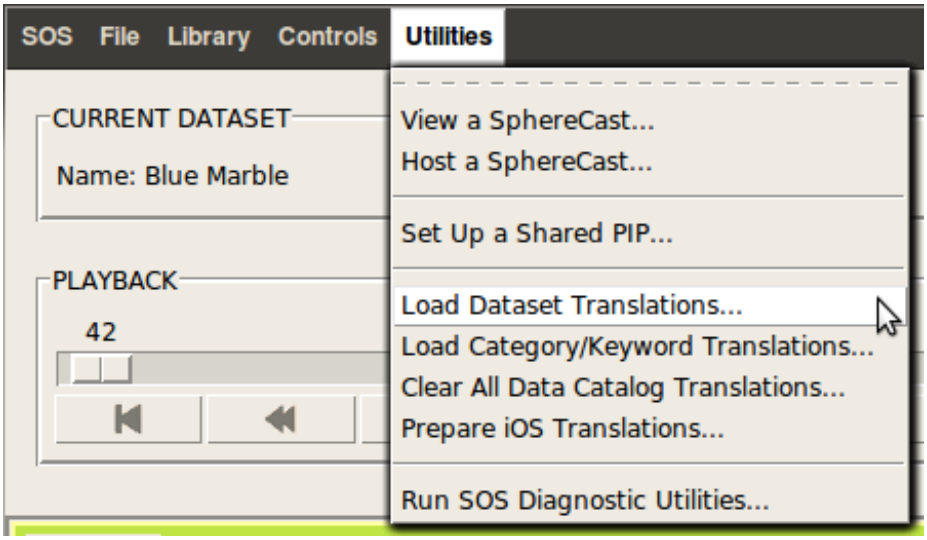
The SOS Stream GUI provides a number of interactive controls to run translation actions under the Library and the Utilities menus. These menu items actually run a command line utility called translations2db with different options. The menu items provide convenient access to the most commonly used translation operations.

From the Library menu



- **Perform Translations**… reruns all the translation operations for datasets, related metadata, and iOS UI. This should be used any time the Update Library… item has been called, because that operation clears all the translations from the Data Catalog.

From the Utilities menu



There are four translation items in the Utilities menu.

- Load Dataset Translations… reads all the playlists (files with the pattern xx_YY.sos) in /shared/sos/locale/ and loads the translated dataset names and descriptions into the SOS Data Catalog. This command is useful when adding the dataset translations to see how they appear in the iPad (after updating the Data Catalog there). It is equivalent to running translations2db --load_playlists --verbose on the command line.
- Load Category/Keyword Translations… reads all the csv files (with the pattern xx_YY.csv) in /shared/sos/locale/ and loads the major category, subcategory, and keyword translations into the SOS Data Catalog. This command is useful when adding the category/keywords translations to see how they appear in the iPad (after updating the Data Catalog there). It is equivalent to running translations2db --load_csv --verbose on the command line.
- Clear All Data Catalog Translations… removes all the translations in the Data Catalog for dataset name and description and for major categories, subcategories, and keywords. This command is useful to delete any prior translations made and start over without localization. It is equivalent to running translations2db --remove_all on the command line.
- Prepare iOS Translations… reads all the tsv files (with the pattern xx.tsv) in /shared/sos/locale/iOS and converts them into xx.strings files. This command is useful when adding user interface translations to see how they appear in the iPad or iPhone. It is equivalent to running translations2db --tsv_to_ios_strings --verbose on the command line.

translations2db Command Line Utility

All translation operations are performed by using the **translations2db** utility, either called by a menu item in the SOS Stream GUI or directly on the command line. This tool is installed in **/shared/sos/default/bin**. There are a number of options, all of which begin with "--". Different options may sometimes be run together at the same time, e.g., translations2db --load_playlists --load_csv --verbose.

The --help option lists all the valid options and their purpose (which have been reformatted and augmented here in a table format for clarity): NOAA Kiosk Manual

Option	Description
`--load_playlists`	**Use to load dataset translations.** Loads dataset name and description translations defined in playlist files normally located in /shared/sos/locale to the data catalog. This option is an alternative to--load_dataset_tsv for loading dataset translations. It accepts multi-line descriptions and uses the standard SOS playlist format. If both `--load_playlists` and `--load_dataset_tsv` options are used together, playlists will take precedence over tsv files for the same locales.
`--load_dataset_tsv`	**Use to load dataset translations**. Loads dataset name and description translations defined in tab separated value (tsv) files normally located in /shared/sos/locale to the data catalog. This option is an alternative to --load_dataset_tsv for loading dataset translations. It does not allow multi-line descriptions, but tsv files are easily loaded into spreadsheet programs, such as Excel or Google Sheets, for convenient editing. If both --load_playlists and --load_dataset_tsv options are used together,

Option	Description
	playlists will take precedence over tsv files for the same locales.
--load_csv	**Use to load category and keyword translations.** Loads translations for major categories, subcategories, and keywords from comma separated value (csv) files normally located in /shared/sos/locale to the data catalog. Csv files are easily loaded into spreadsheet programs, such as Excel or Google Sheets, for convenient editing. May be used together with either the -load_playlists or --load_dataset_tsv options (but not both at once).
--remove_all	**Use to clear all data-related translations loaded previously.** Removes all translations of dataset names & descriptions, major & sub categories, and keywords, leaving only the default English text. Does not affect user interface translations for the iPad or Playlist Editor or any Kiosk-specific translations.
--tsv_to_ios_strings	**Use to create translation files used by the iPad user interface.** Converts translations for the iOS Remote App's user interface defined in tab separated value (tsv) files normally located in /shared/sos/locale/iOS to a special Apple strings format. All iPad translations should be made to the tsv files, not in the generated strings files.
--vple_ts_to_tsv	**Use to prepare translation files used by the Playlist Editor user interface for editing in a spreadsheet.** Converts Visual Playlist Editor translation files in the ts format to tab separated value (tsv) files located in the linked directory /shared/sos/locale/playlist_editor. Tsv files are easily loaded into spreadsheet programs, such as Excel or Google Sheets, for convenient editing. Do not use both --vple_ts_to_tsv and --tsv_to_vple_ts options together.
--tsv_to_vple_ts	**Use to prepare translations edited in a spreadsheet for use by the Playlist Editor user interface.** Converts tab separated value (tsv) formatted files from a spreadsheet to the ts format used by the Playlist Editor user interface. Files must be located in the linked directory /shared/sos/locale/playlist_editor. Do not use both --vple_ts_to_tsv and --tsv_to_vple_ts options together.
--generate_playlists	**Use to extract dataset translations from the data catalog into SOS playlists.** Generates playlists containing dataset names and descriptions for all the

Option	Description
	locales in the data catalog. These files are written to a generated subdirectory (normally /shared/sos/locale/generated). Any playlists previously generated will be overwritten. Only one of --generate_playlist and --generate_dataset_tsv options is typically used at a time. The generated files may be copied to the root locale directory (normally /shared/sos/locale) to update the dataset translations. They can also be used as a starting point for translating a new language. The updated translations are then loaded back into the data catalog with the --load_playlists option.
`--generate_dataset_tsv`	**Use to extract dataset translations from the data catalog for editing in a spreadsheet.** Generates tab separated value (tsv) files containing dataset names and descriptions for all the locales in the data catalog. These files are written to a generated subdirectory (normally /shared/sos/locale/generated). Any tsv files previously generated will be overwritten. Only one of --generate_playlist and --generate_dataset_tsv options is typically used at a time. The generated files may be copied to the root locale directory (normally /shared/sos/locale) and edited in a spreadsheet, such as Excel or Google Sheets, to update the dataset translations. They can also be used as a starting point for translating a new language. The updated translations are then saved back to tsv files and loaded back into the data catalog with the --load_dataset_tsv option.
`--generate_csv`	**Use to extract category & keyword translations from the data catalog for editing in a spreadsheet.** Generates comma separated value (csv) files containing major categories, subcategories, and keywords for all the locales in the data catalog. These files are written to a generated subdirectory (normally /shared/sos/locale/generated). The generated files may be copied to the root locale directory (normally /shared/sos/locale) and edited in a spreadsheet, such as Excel or Google Sheets, to update the category and keyword translations. They can also be used as a starting point for translating a new language. The updated translations are then saved back to tsv files and loaded back into the data catalog with the --load_csv option.
`--verbose`	**Used for troubleshooting.** Write timestamps with logged messages (must appear before --logging).
`--logging level`	**Used for troubleshooting.**

Option	Description
	Set logging level for messages (default is INFO). Valid level values are: FATAL, ERROR, WARN, INFO, DEBUG, TRACE.
--root directory	**Used for troubleshooting.** Use a different translations root directory (default is /shared/sos/locale). The root directory is where all translation files (both original and generated) reside, except for NOAA Kiosk files which are in directories under /shared/sos/kiosk (see NOAA Kiosk Manual for more information).
--use_alternative_db	**Used for troubleshooting.** Use an alternate database in the --root directory copied from /shared/sos/database. Do not use for the iPad!
--generate_sosx_tsv	**For NOAA Internal Use**. Generates tab separated value (tsv) files containing dataset names and descriptions for all the locales to work with SOS Explorer. These files are written to a generated subdirectory (normally /shared/sos/locale/generated). An SOSX tsv file previously generated will be overwritten.